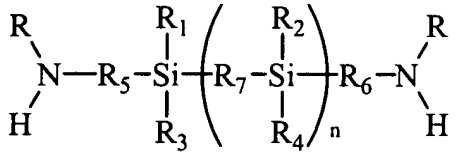
CLEAN VERSION OF PENDING CLAIMS

63. (TWICE AMENDED) A polyurethane-urea elastomeric composition comprising a soft segment and a hard segment,

wherein the soft segment is formed from a compound of formula (I):



(I)

and a compound selected from the group consisting of a macrodiol, a macrodiamine, and mixtures thereof;

wherein

R is hydrogen or an optionally substituted straight chain, branched or cyclic, saturated or unsaturated hydrocarbon radical;

R_1, R_2, R_3, R_4, R_5 and R_6 are each independently hydrogen or an optionally substituted straight chain, branched or cyclic, saturated or unsaturated hydrocarbon radical;

R_7 is a divalent linking group or an optionally substituted straight chain, branched or cyclic, saturated or unsaturated hydrocarbon radical; and

n is an integer of 1 or greater;

wherein the macrodiol is a polysiloxane macrodiol, a polyether macrodiol, a polycarbonate macrodiol, or a mixture thereof;

and wherein the hard segment is formed from:

(i) a diisocyanate; and

(ii) a chain extender comprising the compound of formula (I).

64. (ONCE AMENDED) The composition of claim 63 wherein n is 1 to 4; the molecular weight

of the compound of formula (I) is about 500 or less.

65. The composition of claim 64 wherein R_7 is oxy.

66. The composition of claim 64 wherein the compound of formula (I) has a molecular weight range of about 60 to about 500.

67. The composition of claim 66 wherein the compound of formula (I) has a molecular weight range of about 60 to about 450.

68. The composition of claim 64 wherein the compound of formula (I) is 1,3-bis(3-aminopropyl)tetramethyldisiloxane; or 1,3-bis(4-aminobutyl)tetramethyldisiloxane.

69. (ONCE AMENDED) The composition of claim 64 wherein the chain extender further comprises a second chain extender.

70. (ONCE AMENDED) The composition of claim 69 wherein the second chain extender is a diol, a diamine, a water chain extender, or a combination thereof.

71. The composition of claim 70 wherein the diol chain extender is 1,4-butanediol; 1,6-hexanediol; 1,8-octanediol; 1,9-nonanediol; 1,10-decanediol; 1,12-dodecanediol; 1,4-cyclohexanedimethanol; p-xyleneglycol; 1,4 bis (2-hydroxyethoxy) benzene; water; or a combination thereof.

72. (ONCE AMENDED) The composition of claim 70 wherein the diamine chain extender is 1,2-ethylenediamine; 1,3-propanediamine; 1,3-butanediamine; 1,6-hexanediamine; 1,2-diaminocyclohexane; 1,3-diaminocyclohexane; or a combination thereof.

73. (ONCE AMENDED) The composition of claim 69 wherein the molar percentage of the

compound of formula (I), expressed as the number of moles of each chain extender in the mixture calculated as a percentage, is about 1 to about 50% of the composition.

74. (ONCE AMENDED) The composition of claim 69 wherein the molar percentage of the compound of formula (I), expressed as the number of moles of each chain extender in the mixture calculated as a percentage, is about 35% to about 45% of the composition.

75. The composition of claim 63 wherein the diisocyanate is aliphatic or aromatic.

76. (ONCE AMENDED) The composition of claim 75 wherein the diisocyanate is 4,4'-diphenylmethane diisocyanate (MDI); methylene bis (cyclohexyl) diisocyanate (H_{12}MDI); p-phenylene diisocyanate (p-PDI); trans-cyclohexane-1,4-diisocyanate (CHDI); 1,6-diisocyanatohexane (DICH); 1,5-diisocyanato natphthalene (NDI); para-tetramethylxylene diisocyanate (p-TMXDI); meta-tetramethylxylene diisocyanate (m-TMXDI); 2,4-toluene diisocyanate (2,4-TDI); isophorone diisocyanate (IPDI); or a mixture thereof.

77. The composition of claim 63 wherein the hard segment is present in about 15 wt.% to about 50 wt.% of the composition.

78. The composition of claim 77 wherein the hard segment is present in about 21.8% to about 50 wt.% of the composition.

79. The composition of claim 77 wherein the hard segment is present in about 21.8% to about 40 wt.% of the composition.

80. The composition of claim 63 wherein the soft segment is formed from a polysiloxane macrodiol, a polyether macrodiol, a polyether macrodiamine, or a mixture thereof.

81. (ONCE AMENDED) The composition of claim 63 wherein n is about 5 to about 100; the

number average molecular weight of the compound of formula (I) is about 500 to about 10,000.

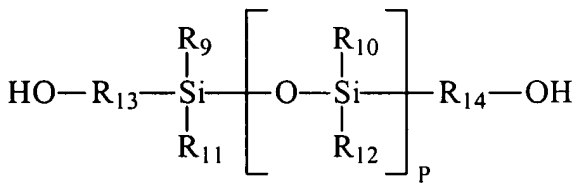
82. (ONCE AMENDED) The composition of claim 81 wherein the compound of formula (I) is an amine-terminated polydimethylsiloxane (PDMS).

83. (ONCE AMENDED) The composition of claim 82 wherein the amine-terminated polydimethylsiloxane (PDMS) is bis(3-aminopropyl)-polydimethyl siloxane.

84. (ONCE AMENDED) The composition of claim 81 wherein the soft segment is formed from the compound of formula (I), a macrodiol, and a macrodiamine.

85. The composition of claim 84 wherein the macrodiol is a polysiloxane macrodiol, a polyether macrodiol, a polyester macrodiol, a polycarbonate macrodiol, or a mixture thereof.

86. (ONCE AMENDED) The composition of claim 85 wherein the polysiloxane macrodiol is a compound of formula (II):



(II)

wherein

R_9, R_{10}, R_{11}, R_{12}, R_{13} and R_{14} are each independently an optionally substituted straight chain, branched or cyclic, saturated or unsaturated hydrocarbon radical; and

p is an integer of 1 to 100.

87. (ONCE AMENDED) The composition of claim 86 wherein the compound of formula (II) is polydimethylsiloxane (PDMS).

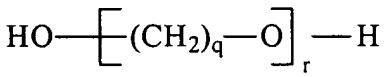
88. The composition of claim 87 wherein R_{13} and R_{14} are each independently propylene, butylene, pentylene, hexylene, ethoxypropyl, propoxypropyl, or butoxypropyl.

89. (ONCE AMENDED) The composition of claim 86 wherein the number average molecular weight of the compound of formula (II) is about 200 to about 6,000.

90. (ONCE AMENDED) The composition of claim 86 wherein the number average molecular weight of the compound of formula (II) is about 500 to about 2,000.

91. (ONCE AMENDED) The composition of claim 84 wherein the soft segment is formed from an amine-terminated polydimethylsiloxane (PDMS) and polydimethylsiloxane (PDMS).

92. The composition of claim 85 wherein the polyether macrodiol is a compound of formula (III).



(III)

wherein

q is an integer of 4 or more; and

r is an integer of 2 to 50.

93. (ONCE AMENDED) The composition of claim 92 wherein q is 5 or higher.

94. The composition of claim 93 wherein the compound of formula (III) is poly(hexamethylene oxide) (PHMO); poly(heptamethylene oxide); poly(octamethylene oxide) (POMO); or poly(decamethylene oxide) (PDMO).

95. (ONCE AMENDED) The composition of claim 92 wherein the soft segment is formed from the macrodiamine compound of formula (I); and the macrodiol compound of formula (III).

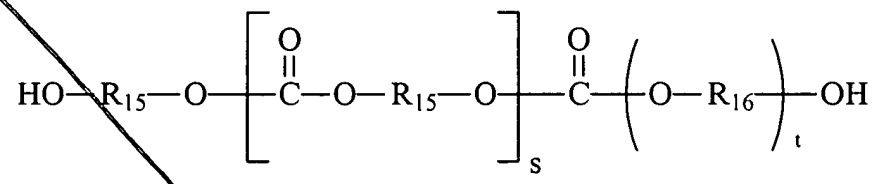
96. (ONCE AMENDED) The composition of claim 92 wherein the number average molecular weight of the compound of formula (III) is about 200 to about 5,000.

97. (ONCE AMENDED) The composition of claim 96 wherein the number average molecular weight of the compound of formula (III) is about 500 to about 1,200.

98. (ONCE AMENDED) The composition of claim 85 wherein the polycarbonate macrodiol is a poly(alkylene carbonate); a polycarbonate prepared by reacting an alkylene carbonate with an alkanediol; a silicon polycarbonate prepared by reacting an alkylene carbonate with 1,3-bis(4-hydroxybutyl)-1,1,3,3-tetramethyldisiloxane (BHTD); an alkanediol; or a mixture thereof.

99. The composition of claim 85 wherein both the polyether macrodiol and the polycarbonate macrodiol are present as a mixture or a copolymer.

100. (ONCE AMENDED) The composition of claim 99 wherein the copolymer is a copoly(ether carbonate) macrodiol represented by the compound of formula (IV):



(IV)

wherein

R_{15} and R_{16} are each independently an optionally substituted straight chain, branched or cyclic, saturated or unsaturated hydrocarbon radical; and s and t are integers of 1 to 20.

101. The composition of claim 84 wherein the macrodiamine is a polyether macrodiamine.

102. (ONCE AMENDED) The composition of claim 101 wherein the polyether macrodiamine is an amine terminated polytetramethyleneoxide.

103. (ONCE AMENDED) The composition of claim 63 wherein the soft segment is formed from the compound of formula (I), a macrodiol, and a macrodiamine.

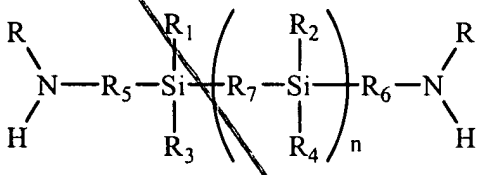
104. (ONCE AMENDED) A polyurethane-urea elastomeric composition comprising a soft segment and a hard segment, wherein the soft segment is formed from:

a macrodiol comprising a polysiloxane macrodiol and a polyether macrodiol; and wherein the hard segment is formed from:

a diisocyanate; and

a chain extender selected from the group consisting of:

a) a compound of formula (I):



(I)

wherein

R is hydrogen or an optionally substituted straight chain, branched or cyclic, saturated or unsaturated hydrocarbon radical;

R_1, R_2, R_3, R_4, R_5 and R_6 are each independently hydrogen or an optionally substituted straight chain, branched or cyclic, saturated or unsaturated hydrocarbon radical;

R_7 is a divalent linking group or an optionally substituted straight chain, branched or cyclic, saturated or unsaturated hydrocarbon radical; and

n is an integer of 1 to 4;

the molecular weight of the compound of formula (I) is about 500 or less;

b) 1,3-bis(3-aminopropyl)tetramethyldisiloxane;

c) 1,3-bis(4-aminobutyl)tetramethyldisiloxane;

d) 1,4-butanediol;

e) 1,2-ethylenediamine;

f) ethanolamine; hexamethylenediamine;

g) 1,4-butanediamine;

h) water;

i) 1,4-bis(4-hydroxybutyl)tetramethyldisiloxane; and

j) combinations thereof.

105. The composition of claim 104 wherein the weight ratio of polysiloxane macrodiol to polyether macrodiol in the composition is about 1:99 to about 99:1.

106. (ONCE AMENDED) The composition of claim 104 wherein the weight ratio of polysiloxane macrodiol to polyether macrodiol is about 75:25 to about 85:15.

107. (ONCE AMENDED) The composition of claim 104 wherein the weight percentage of the macrodiol in the composition is about 60 wt.% to about 40 wt.%.

108. (ONCE AMENDED)The composition of claim 104 wherein the diisocyanate is MDI.

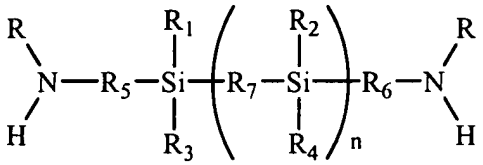
111. (ONCE AMENDED) A polyurethane-urea elastomeric composition comprising a soft segment and a hard segment, wherein the soft segment is formed from:

a macrodiol selected from the group consisting of a polysiloxane macrodiol, a polyether macrodiol, a polyester macrodiol, and a polycarbonate macrodiol, or a polyether macrodiamine, and mixtures thereof;

and wherein the hard segment is formed from:

a diisocyanate; and

a chain extender comprising a compound of formula (I):



(I)

wherein

R is hydrogen or an optionally substituted straight chain, branched or cyclic, saturated or unsaturated hydrocarbon radical;

R_1, R_2, R_3, R_4, R_5 and R_6 are each independently hydrogen or an optionally substituted straight chain, branched or cyclic, saturated or unsaturated hydrocarbon radical;

R_7 is a divalent linking group or an optionally substituted straight chain, branched or cyclic, saturated or unsaturated hydrocarbon radical; and

n is an integer of 1 to 4; and

wherein the compound of formula (I) has a molecular weight of about 500 or less.

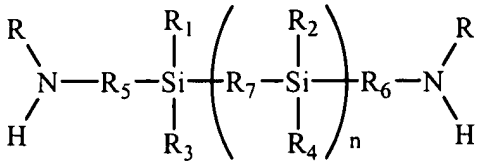
112. (ONCE AMENDED) A polyurethane-urea elastomeric composition comprising a soft segment and a hard segment, wherein the soft segment is formed from:

a macrodiol comprising a polysiloxane macrodiol and a polycarbonate macrodiol; and the hard segment is formed from:

a diisocyanate; and

a chain extender selected from the group consisting of:

a) a compound of formula (I):



(I)

wherein

R is hydrogen or an optionally substituted straight chain, branched or cyclic, saturated or unsaturated hydrocarbon radical;

R_1, R_2, R_3, R_4, R_5 and R_6 are each independently hydrogen or an optionally substituted straight chain, branched or cyclic, saturated or unsaturated hydrocarbon radical;

R_7 is a divalent linking group or an optionally substituted straight chain, branched or cyclic, saturated or unsaturated hydrocarbon radical; and

n is an integer of 1 to 4; and

the compound of formula (I) has a molecular weight of about 500 or less;

b) 1,3-bis(3-aminopropyl)tetramethyldisiloxane;

c) 1,3-bis(4-aminobutyl)tetramethyldisiloxane;

d) 1,4-butanediol;

e) 1,2-ethylenediamine;

f) ethanolamine;

g) hexametylenediamine;

h) 1,4-butanediamine;

i) water;

j) 1,4-bis(4-hydroxybutyl)tetramethyldisiloxane; and

k) combinations thereof;

wherein the level of hard segment in the composition is about 21.8 wt.% to about 60 wt.%.

117. (ONCE AMENDED) A biomaterial that is manufactured from a composition of claim 63.

118. (ONCE AMENDED) A medical device, article or implant composed wholly or partly of the composition of claim 63.

119. (ONCE AMENDED) The medical device, article or implant of claim 118 which is a cardiac pacemaker, defibrillator, electromedical device, catheters, cannula, implantable prostheses, cardiac assist device, heart valve, vein valve, vascular graft, extra-corporeal device, artificial organ, pacemaker lead, defibrillator lead, blood pump, balloon pump, A-V shunt, biosensor, membranes for cell encapsulation, drug delivery device, wound dressing, artificial joint, orthopaedic implant, or soft tissue replacement.

120. A device or article composed wholly or partly of the composition of claim 63.

121. (ONCE AMENDED) The device or article of claim 120 which is artificial leather, a shoe sole, cable sheathing, varnish, coating, structural components for a pump, structural components for a vehicle, mining ore screen, conveyor belt, laminating compound, textile, separation membrane, sealants or a component of an adhesive.

~~122~~. (NEW) The medical device, article or implant of claim 118 having a cyclic-flex fatigue resistance of greater than about 295 million cycles.

~~123~~. (NEW) The medical device, article or implant of claim 118 having a degradation resistance ranking of from about 0.7 to about 24.9.

~~124~~. (NEW) The medical device, article or implant of claim 118 having a degradation resistance ranking of from about 0.7 to about 24.9 after about 3 months *in vivo*.

~~125~~. (NEW) The medical device, article or implant of claim 118 having a degradation resistance ranking of from about 0.7 to about 2.4 after about 3 months *in vivo*.